Lepidoptera Geometridae: Notes and Descriptions.

By W. S. Wright, San Diego, California.

Stamnodes coenonymphata Hulst.

Of all the species of *Stamnodes* known to me, *coenonymphata* Hulst is perhaps the most puzzling. A small series identified by the late John A. Grossbeck has stood under this name in my collection for a number of years. Three of the series are from the San Francisco Bay region, the rest from San Diego. Before me at the time of this writing is a small series of San Diego specimens from the collection of my friend, George H. Field. The examples in this series were identified by Mr. Louis Swett and the late Mr. Grossbeck. Specimens in the Pearsall and Grossbeck collections now deposited with the American Museum, New York City, were mostly from Mr. Field's and my collections. Practically all these specimens are more or less worn and might easily agree with Hulst's diagnosis, since it lacks certain details which, in the light of recent collections made in San Diego, seem to be necessary to exactly describe the species. Unfortunately I do not have before me either the type or specimens from the type locality. A single specimen from Los Angeles falls into my Group D.

During the winter and spring of 1921-22 I collected about 150 specimens at San Diego. None but perfect specimens were taken. These, together with the small series before referred to, comprise a series of 170 examples. Viewed from above the entire group seems to be quite typical of *coenonymphata* as identified by Swett and by Grossbeck. The three San Francisco specimens differ quite markedly in the form of the wings, the costal edge being much less curved and the apex more produced than in the case with San Diego examples. This small group may require another name. The San Diego specimens easily fall into four groups with variants in each group. While the lines defining the several groups are quite distinct they do not, to my mind, provide sufficient evidence for the erection of new species, but they do, in the light of present day practices among students, justify form or race names.

Stamnodes coenonymphata coenonymphata (Hulst).

Group A. This group containing 61 specimens agrees most nearly with Hulst's description of *coenonymphata*. There are, however, some differences. Beyond the third costal spot and near the apex a faint line appears crossing the "dark apex, in triangular shape" parallel with outer margin. This line is a reflection of a sharp division of the apical area beneath, the outer portion being of the same general color as the inner portion but less intense, the difference being due to the presence of some scattered white scales and small masses of red scales in the marginal space. The so-called "broad light colored cross lines, nearly white" on the secondaries fail to appear as described. In the typical specimens of this group the line is narrow, often reduced to a mere hair line. The basal area is nearly black. The narrow white line starts from just beyond the small white discal dot, rounds the cell and reaches the middle of the inner margin perpendicularly. Beyond the white line is a broad blackish band with a few scattered white scales and small masses of red scales. In the marginal space the black of the mesial band gives way to red, while the costal edge from base to mesial dark band is often broadly red with small scattered masses of black scales and, in some specimens, a diffuse mass of white near the outer end of the cell.

This group, although apparently differing rather widely from the description, seems to me to be nearest the type and for it I propose the name *coenonymphata coenonymphata* (Hulst).

Stamnodes coenonymhata prunata forma nova.

Group B. has a much different appearance both above and below. Above, the costal spots are larger and more contrasting, the subterminal faint line mentioned in Group A is more conspicuous and the veins in the terminal space are more or less distinctly outlined in yellow. In nearly every specimen of this group the central portion of the "subquadrate darker space" of the primaries is yellowish, especially on the costa where the yellow often occupies fully one-third of the costal space between the second and third costal spots.

Beneath, the maculation is quite remarkable. The costa of primaries is marked by four yellow spots. From the fourth spot a broad line crosses the wing as in typical *coenonymphata,* the apex is of a brilliant white faintly tinged with blue. The basal third of the secondaries is white, with a thick scattering of fuscous-black strigae. Just before the characteristic broad white line at the middle is a clear fuscous-black patch irregular in outline and approximating the inner margin. In the space

beyond the white line is a broad fuscous-black band occupying about half the space between white line and termen and crossing the wing completely from costal to inner edge, while the broad marginal band is a clear brilliant white with a few scattered dark strigae; fringe concolorous.

For this Group, containing 55 specimens, I propose the name *coenonymphata prunata* forma nova.

Stamnodes coenonymphata pallidata forma nova.

Group C. contains 46 examples and is more nearly typical above, according to the description, than are the members of either Group A or B; however, beneath it is much lighter in color, with a tendency for the first and second costal marks to become obsolete. The bluish white apical patch of primaries is less brilliant, tending to become more or less obsolete, while the bands of the secondaries tend to become diffuse, losing the fuscous and black scales and tending to numerous strigae and masses of bright red scales.

On account of its much lighter appearance I propose for this group the name *coenonymphata pallidata* forma nova.

Stamnodes coenonymphata brunneata forma nova.

The fourth group, Group D, is composed of twelve specimens, much smaller than those of the other three groups, 22 to 25 mm. This group resembles the members of Group C on the upper surface. Beneath, however, there is a wide difference. Only the third costal mark is apparent in most of the specimens, the first and second are either absent or reduced to mere specks. The costal edge and apex are bright red, the rest of the wing is smoky fuscous. The secondaries are a clear red with black strigae in the basal area, while in the area beyond the cell only scattered black atoms appear in the red field. In a few specimens the outer edge of the basal area is marked by a thickening of the black strigae sufficiently to form a definite line across the wing.

For this group I propose the name *coenonymphata brunneata* forma nova.

Stamnodes coenonymphata eldridgensis (Swett).

Another small group of six specimens appears to answer to the description of *eldrigensis* Swett.

Some time ago I sent a specimen of what I now propose to call form *prunata* to Mr. Swett, with an MS. giving it specific

standing, for his criticism. He then pointed out to me that it was in all probability his *eldridgensis,* but recently described from a single male taken at Eldridge, California. A careful comparison of Swett's diagnosis with that of Hulst fails to show differences of sufficient clearness to warrant the retention of Swett's species and, in the face of his admissions (in lit.), I feel sure that *eldridgensis* must either fall to *coenonymphata* or become one of its forms, in which case it would be known as *coenonymphata eldridgensis* (Swett).

The recorded captures in all these groups are from the latter part of November to early in March except in Group C which, with but four exceptions was taken in January, two were captured in the last of December and two during the first week of February. All specimens were taken at light, only perfect specimens being taken.

The types and paratypes here listed are all in the author's collection.

Cosymbia piazzaria n. sp.

Alar expanse 22-25 mm. Palpi pale, tinged outwardly at tip and on second member with fulvous. Front fulvous, a little lighter just above the clypeus. Antennal pectinations fulvous on the upper side. Thorax and abdomen concolorous with the upper surface of the wings.

Primaries:—The ground color above is ochreous with bright fulvous strigations rather evenly distributed over the entire surface of the wings. About one-fourth out from the base is a black line curving outwardly across the wing in a series of dots on the veins. At one-fourth in from the apex a similar line crosses the wing parallel with the outer margin. In the cell a white dot, broadly linear, surrounded by a wide ring of black. Just beyond the discal dot is a broad, smoky, sinuate line or band crossing the wing from costa to inner margin. A terminal line of black dots, while in the base of the fringe and alternate with the black dots is a series of fuscous dots. Fringe short, concolorous and lustrous.

Beneath; the same color as above but with fewer fulvous strigations. Discal dot visible, outer and terminal lines repeated but rather fulvous than black.

Secondaries concolorous; lines and bands of the primaries continued across the wings. Beneath; as in the primaries.

The female is colored and marked as in the male with the

exception that the black median band is likely to be more or less fulvous on the disk.

Holotype, male, San Diego, California, Aug. 21, 1919. *Allotype,* female, Echo Mt., Calif., July 24, 1921. *Paratypes;* (a) male, San Diego, Calif., Febr. 15, 1916. (b) male, Echo Mt., Calif., July 23, 1921; (c) female, Echo Mt., Calif., July 24, 1921. (d) female, Yavapai County, Arizona, Sept. 13.

I have before me 9 specimens of this very interesting species. Three are so badly damaged as to make it unwise to make them paratypes. One of the three, taken at Prescott, Arizona, is much lighter in color and marked much as in *myrtaria*, the others present all the essential characters of *piazzaria* but are otherwise torn and broken. Paratype (a) is quite remarkable in that the colors are much stronger and more contrasting than in the holotype. The species has much the same general appearance as to color as *myrtaria* while the maculation resembles that of *lumenaria;* I should say that its taxonomic position is between the two.

I dedicate the species to my friend Mr. E. Piazza, of San Diego, through whose kindness I obtained all but one of the specimens.

Venusia foxi n. sp.

Expanse 28 mm. Palpi rough scaled, brown. End joint minute and lighter colored. Antennae of the female filiform, scaled above, annulate, ciliate beneath. Front brown and white scales mixed, rounded but not bulging. Vertex and collar concolorous with the front.

Thorax brown; patagiae white with a slight mixture of brown.

Abdomen cinereous with brown and white cross lines at the joints.

Legs brown cinereous; tarsi annulate with white.

Primaries with brownish white ground color, darkest along outer margin. A basal half-line, faint on costa but well marked on median vein where it stops. About 2 mm. out is a broad black line accented on the veins, widest on costa and narrowing gradually to inner margin where it terminates about 1.5 mm. out. Between this line and the middle of the wing are three rather indistinct or diffuse black lines accented on the veins, especially on sub-median and on 1a. At the middle, or a little less than half-way out, is a broad black line, appearing as a

black spot from costa to subcosta, a short < mark at beginning of vein 2 and a black streak on 1a. A small black discal dot followed by a sinuate hair line traceable clear across the wing. An extra discal line commences in a squarish spot on costa and parallels the preceding hair line in a series of black dots on the veins. Three more black lines cross the wing in the submarginal space. A submarginal, scalloped, white line crosses the wing from a point about 1 mm. in from apex to anal angle. The nervures through the marginal space are streaked with dark brown or blackish. At the ends of the nervures is a series of twinned black spots. Fringe sordid, checkered with brownish.

Secondaries concolorous, darker at margins. Discal dot black. Veins beyond the cell accented with brown. Marginal line as in primaries.

Beneath cinereous; smoky along costa and outward; discal dots apparent; extra-discal line on primaries traceable beyond the cell in both wings. Nervures accented with brown.

Holotype female; Mendocino County, California, Aug. 23, 1915 (Fox).

The type agrees best with *Epperrata dilutata* Hübner as described in Packard's Monograph; it is, however, much smaller and quite distinct. I am pleased to dedicate the species to Mr. C. L. Fox, of San Francisco, through whose kindness the specimen came to me.

The American Species of the Drosophilid genus Stegana (Diptera).

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In this paper are presented in synoptic form brief descriptions of the species of the genus *Stegana* Meigen which are known to occur in the New World with the exception of one described by Williston from St. Vincent.

The material was, with the exception of one specimen, collected by Pablo Schild in San Mateo, Costa Rica; the single exception being a paratype of *uniformis* taken in the Canal Zone, Panama, by R. C. Shannon. The types are all in the United States National Museum collection.

Fuller descriptions will appear later in the Proceedings of the National Museum.